CLAIMS

1. A navigation method for providing navigation by using map data, comprising:

displaying a menu with which a user specifies an area of a map over which map data are to be updated, the menu containing a map-based option for area specification and a route-based option for area specification;

obtaining update data along a route if the route-based option is selected from the options in the menu on display; and

executing processing by using the obtained update data.

2. A navigation method according to claim 1, wherein:

availability/unavailability of update data in individual map meshes along the route is displayed if the route-based option is selected from the options in the menu;

the update data are obtained in response to a data update instruction; and

the processing is executed by using the obtained map data.

3. A processing method to be adopted in a navigation system that includes an input device, an output device having a display unit, a processing device and a recording medium, stores storage data including map data in the storage medium

and provides navigation by using the storage data, comprising:

displaying a plurality of options including "road data" so as to enable specification of map data to be updated;

displaying a plurality of roads if the "road data" are selected from the options on display;

obtaining update data corresponding to a specific road selected from the roads on display; and

executing processing by using the obtained data.

4. A processing method to be adopted in a navigation system, which includes an input device, an output device having a display unit, a processing device and a recording medium, stores storage data including map data in the storage medium and displays route information with regard to a route from a current position to a destination by using the storage data, comprising:

displaying a plurality of options including "road data" so as to enable specification of map data to be updated;

displaying a plurality of roads along a route if the "road data" are selected from the options on display;

obtaining update data corresponding to a specific road selected from the roads on display; and

executing processing by using the obtained data.

5. A processing method to be adopted in a navigation system, which includes an input device, an output device having a display unit, a processing device and a recording medium, stores storage data including map data in the storage medium and displays route information with regard to a route from a current position to a destination by using the storage data, comprising:

displaying a plurality of options including road data so as to enable specification of map data to be updated;

displaying a plurality of roads related to a route and availability/unavailability of data to be used for an update if the road data are selected from the options on display;

obtaining update data corresponding to a specific road selected from the roads on display; and

executing processing by using the obtained data.

6. A navigation method for providing navigation by using map data, comprising:

displaying a menu with which a user specifies an area of a map over which map data are to be updated, the menu containing options that enable category-based area specification;

obtaining update data based upon a specific category selected from the options in the menu on display; and

executing processing by using the obtained update data.

7. A map data management apparatus connected via a communication network with a navigation system that uses map data stored in a fixed recording medium and update map data downloaded thereto in combination, comprising:

a map data management means that manages map data so that a memory volume does not exceed a predetermined maximum value and handles meshes with history information to be used to determine update statuses of individual sets of data as management units of the map data; and

an update data providing means that searches for an area in which relevant map data corresponding to a data update request issued from the navigation system belong, in units of individual meshes and provides update data together with the history information.

8. A map data management program to be used in a navigation system that uses map data stored in a fixed recording medium and update map data downloaded from a map data management apparatus in combination, comprising:

a step of prompting a selection in a map data update menu prepared in advance, obtaining an input indicating the selection and displaying a specific area for a data update; and

a step of prompting an input of at least one selected option in an update category menu prepared in advance and using the update map data in the specific area based upon the input of the selected option.

9. A map data management program to be used in a navigation system that uses map data stored in a fixed recording medium and update map data downloaded from a map data management apparatus in combination, comprising:

a step of executing a route search and displaying route information indicating a route from a current position or a start point to a destination on a map; and

a step of prompting an input of at least one selected option in an update category menu prepared in advance after the route information has been determined and reflecting the update map data in the route information displayed on the map based upon the input of the selected option.

10. A map data management program to be used in a map data management apparatus connected via a communication network with a navigation system that uses map data stored in a fixed recording medium and update map data downloaded from the map data management apparatus in combination, comprising:

a step of handling reference meshes managed in a smallest possible fixed size allowed in relation to a memory

capacity and having history information used to determine update statuses of individual sets of data as management units of the map data; and

a step of searching for an area in which relevant map data corresponding to a data update request issued from the navigation system belong in units of the individual reference meshes and providing update data together with the history information.

11. A computer program executed in a navigation system that uses map data, comprising:

a step of displaying a "region" option and a "road" option to enable specification of map data to be updated, displaying prefectures and cities to enable specification of a region if the "region" option is selected and allowing specification of an area for a data update through a further selection made from display contents;

a step of displaying a plurality of roads if the "road" option is selected and allowing specification of an area for a data update through a further selection made from the roads on display; and

a step of obtaining update data corresponding to the specified area and executing processing by using the obtained update data.

12. A computer program executed in a navigation system that uses map data, comprising:

a step of displaying route information indicating a route from a current position to a destination;

a step of displaying availability/unavailability of update information related to the route information; and

a step of executing processing based upon data obtained in response to an update instruction.

13. A computer program executed in a navigation system that uses map data, comprising:

a step of displaying route information indicating a route from a current position to a destination;

a step of displaying availability/unavailability of update information related to the route information in correspondence to individual meshes so that a mesh with update information is visually distinguishable from a mesh with no update information; and

a step of executing processing based upon data obtained in response to an update instruction.